

AI
CONF.

adjust its transmission frequency in response to other characteristics of the radio frequency environment in which the tire monitor operates. Further, the method and apparatus described herein may be extended to use with any type of tire, not just metallic ply sidewall tires, to thereby optimize the performance of tire monitors used with other types of tires. It is therefore intended in the appended claims to cover all such changes and modifications which fall within the true spirit and scope of the invention.

In the claims:

Please amend claim 12 as shown below:

sub. C1
12. The tire monitor of claim 11 wherein the predetermined model has been characterized for frequency response, the frequency response including the passband of frequencies.

Please add new claims 21 - 23 as shown below.

sub. B3
C1
21. (New) A remote tire monitor system for a vehicle having a plurality of wheels, the remote tire monitor system comprising:
one or more tire monitors, each respective tire monitor being associated with a wheel of the vehicle, the wheel having a characteristic frequency response to electromagnetic energy imparted on the wheel, each respective tire monitor including
a respective tire data sensor, and
a respective radio transmitter coupled with the tire data sensor and configured to transmit electromagnetic energy to convey tire data, the respective radio transmitter transmitting the electromagnetic energy at one or more transmission frequencies chosen in relation to the characteristic frequency response of the wheel; and
a receiver configured to detect the transmitted electromagnetic energy.

AB
CONF.

22. (New) The remote tire monitor system of claim 21 wherein the respective radio transmitter transmits the electromagnetic energy at transmission frequencies chosen to be in a passband of the characteristic frequency response of the wheel.

23. (New) A tire monitor mountable inside a tire of a vehicle, the tire monitor comprising:
a tire data sensor to produce data indicative of a tire condition; and
a transmit circuit coupled with the tire data sensor to transmit tire data at one or more transmission frequencies chosen to be within a passband of frequencies of a characteristic frequency response to electromagnetic energy imparted on the tire.